UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 03/24/2009

Brinks Hofer Gilson & Lione P.O. Box 10395 Chicago, IL 60610 EXAMINER

NGUYEN, THANH NHAN P

ART UNIT PAPER NUMBER

2871 DATE MAILED: 03/24/2009

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONTERMATION NO.

 10/722,907
 11/25/2003
 Tetsuchi Tanada
 9281-4715
 2923

TITLE OF INVENTION: REFLECTOR AND LIQUID CRYSTAL DISPLAY PANEL

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/24/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth	ng the Patent, advance on herwise in Block 1, by (a	rders and notification of r a) specifying a new corres	naintenance fees wi spondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block I for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, mus- have its own certificate of mailing or transmission.			
	7590 03/24	/2009		Certi	ificate	of Mailing or Trans	nission
Brinks Hofer O P.O. Box 10395 Chicago, IL 606			I he Stat addi tran	reby certify that this es Postal Service wi ressed to the Mail smitted to the USPT	s Fee(s ith suf Stop O (57	s) Transmittal is being ficient postage for firs ISSUE FEE address I) 273-2885, on the d	deposited with the United t class mail in an envelope above, or being facsimile ate indicated below.
							(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/722,907	11/25/2003		Tetsushi Tanada	•	9281-4715		2923
TITLE OF INVENTION	: REFLECTOR AND L	QUID CRYSTAL DISPI	AY PANEL				
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$0 \$1810		06/24/2009
EXAM	IINER	ART UNIT	CLASS-SUBCLASS]			
NGUYEN, TH	ANH NHAN P	2871	349-II3000	-			
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). Change of correspondence address (or Change of Correspondence Address form PTOVSB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTOVSB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(I) the names of up to or agents OR, alternativ (2) the name of a singl registered attorney or a	me of a single firm (having as a member a attorney or agent) and the names of up to deparent attorneys or agents. If no name is			
PLEASE NOTE: Un recordation as set for (A) NAME OF ASSI	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assignee eletion of this form is NO	(B) RESIDENCE: (CITY	atent. If an assigne assignment. and STATE OR CO	DUNT	RY)	ocument has been filed for
					_		
4a. The following fee(s) Issue Fee	are submitted:	40	 Payment of Fee(s): (Plea	ise first reapply any	y prev	iousty paid issue fee	snown above)
Publication Fee (N	vo small entity discount p	permitted)	Payment by credit car	d. Form PTO-2038	is atta	ched.	
Advance Order -	# of Copies		The Director is hereby overpayment, to Depo	authorized to charg sit Account Number	e the	required fee(s), any de (enclose a	ficiency, or credit any n extra copy of this form).
5. Change in Entity Sta	tus (from status indicated s SMALL ENTITY statu		☐ b. Applicant is no lon				
NOTE: The Issue Fee an	d Publication Fee (if req	uired) will not be accepted tes Patent and Trademark	d from anyone other than t	he applicant; a regis	tered :	ittorney or agent; or th	e assignee or other party in
Authorized Signature							
Typed or printed name			Registration No.				
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR (on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by th imated to take 12 m idual case. Any cor er, U.S. Patent and T O THIS ADDRESS.	e publ inutes nment fraden SENI	ic which is to file (and to complete, includin s on the amount of tin ark Office, U.S. Depo O TO: Commissioner	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

OMB 0651-0033



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 03/24/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/722,907	11/25/2003	Tetsushi Tanada	9281-4715	2923	
7590 03/24/2009			EXAMINER		
Brinks Hofer Gilson & Lione			NGUYEN, THANH NHAN P		
P.O. Box 10395			ART UNIT	PAPER NUMBER	
Chicago, IL 60610					

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)		
10/722,907	TANADA ET AL.		
Examiner	Art Unit		
THANH-NHAN P. NGUYEN	2871		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 133 and MPEP 1308.

- This communication is responsive to 12/17/08.
- The allowed claim(s) is/are 21-24 and 26-30.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDOMMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- Other _____.

Application/Control Number: 10/722,907 Page 2

Art Unit: 2871

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

This application is in condition for allowance except for the presence of claims 1, 4-6 and 9-20 directed to non-elected with traverse. Examiner is authorized to cancel these claims by Attorney Siller on 3/11/2009. Accordingly, claims 1, 4-6 and 9-20 are canceled.

Allowable Subject Matter

Claims 21-24 and 26-30 are allowed.

Reasons for Allowance

Claims 21-24 and 26-30 are allowed since there is no prior art of record that teaches or suggests a reflector attached to an outer surface of a glass substrate and a method of forming thereof comprising a relationship of various elements as claimed with the specific allowable subject matter cited in the following claim:

Claims 21 and 22:

- a reflective film
- a processed resin layer having a plurality of recesses, which define a reflection characteristic of the reflective film
- · a moisture-proof film base that supports the processed resin layer

Application/Control Number: 10/722,907

Art Unit: 2871

a support resin layer having a high glass transition temperature interposed

between the processed resin layer and the moisture-proof film base

· wherein the support resin layer having a higher glass transition temperature and

lower moisture absorption property than those of the processed resin layer

· wherein the reflective film is disposed between the adhesive film and brought into

direct contact with the processed resin layer such that a shape of the plurality of

recesses of the processed resin laver is reflected in the reflective film and

wherein the adhesive film and the glass substrate, in that order, are laminated

upon the reflective film, wherein the recesses are formed in a spherical shape for

reflection and randomly arranged, and contact portions between the recesses are

formed in a peaked shape

Claims 23, 27, 29 and 30 are allowed since they depend on allowed claim 21.

Claims 24, 26 and 28 are allowed since they depend on allowed claim 22.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yoshii et al (US 2002/0030774) disclose a reflector attached to an outer surface of a glass substrate comprising a reflective film; a processed resin layer having a plurality of recesses, which define a reflection characteristic of the reflective film; a moisture-proof film base that supports the processed resin layer. However, Yoshii et al lack disclosure of a support resin layer having a high glass

transition temperature interposed between the processed resin layer and the

Art Unit: 2871

moisture-proof film base; wherein the support resin layer having a higher glass transition temperature and lower moisture absorption property than those of the processed resin layer.

Akins et al (US 6285425) disclose a ridged reflector attached to an outer surface of a glass substrate comprises a polymeric layer having a ridged surface and an opposite surface opposite the ridged surface. The ridged surface includes a series of ridges. Each of said ridges has a first face and a second face intersecting the first face. The first face is oriented at a first angle relative to a plane parallel to the opposite surface. A reflective metallic layer overlies at least the first faces of the polymeric layer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Application/Control Number: 10/722,907 Page 5

Art Unit: 2871

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

-- March 12, 2009

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871